

AMENDMENTS TO THE CLAIMS

1. (presently amended) An apparatus, comprising:

a jet mill for the comminuation of powdery materials, comprising;

a pressure resistant pulverizing inner casing, the inner casing having at least one first inlet port in a wall of the inner casing, the at least one inlet port for introducing a propellant fluid having a high first pressure outside the inner casing into the inside of the inner casing, the at least one inlet port for converting potential energy of the high first pressure propellant fluid outside the inner casing to kinetic energy of a jet of propellant fluid inside the inner casing when a low second pressure obtains within the inner casing, the inner casing for resisting a first high pressure outside the inner casing against a second pressure lower than the first high pressure inside the inner casing, the inner casing for being completely contained inside a pressure resistant outer casing, wherein the outer casing is resistant to a pressure difference between the high first pressure inside the outer casing and a low third pressure outside the outer casing, contains a fluid having the first high pressure inside the outer casing, and wherein the inner casing is resistant to a pressure difference between the high first pressure outside the inner casing and the low second pressure inside the inner casing, and wherein an annular pressurized duct is formed between the inside walls of the outer casing and the outside walls of the inner casing, and wherein the pressurized duct has a significant volume compared to the inside volume of the inner casing, and wherein the pressurized duct is filled with propellant fluid having the first high pressure, having at least one first inlet port for introducing a propellant fluid from an annular pressurized duct formed by at least one inside wall of the outer casing and at least one outside wall of the inner casing, and wherein the propellant fluid fed through a wall of the outer casing into the pressurized duct, and thence from the is fed from the pressurized duct through

29 the at least one first inlet port into the inside of the inner casing, the inner casing
30 having abrasion resistant inner surfaces, the inner casing having at least one
31 second inlet port for introducing a powdery material into the inner casing, the
32 inner casing having at least one outlet port for extracting the comminuated
33 powdery material from the inner casing.

1 2. (Original) The apparatus of claim 1, further comprising the outer casing.

1 3. (Original) The apparatus of claim 2, wherein the outer casing operatively
2 compresses the inner casing over at least one area, and wherein at least one
3 vent is placed in the outer casing in the at least one area.

1 4. (Previously presented) The apparatus of claim 3, wherein an equalizing film is
2 inserted between the outer casing and the inner casing over the at least one
3 area.

1 5. (Original) The apparatus of claim 2, wherein the inner casing comprises four parts.

1 6. (Original) The apparatus of claim 5, wherein each part of the inner casing is made
2 of a single abrasion-resistant material.

1 7. (Original) The apparatus of claim 5, wherein parts of the inner casing are made
2 from different abrasion-resistant materials.

1 8. (Original) The apparatus of claim 5, wherein the abrasion resistant inner surface is
2 smooth

1 9. (Original) The apparatus of claim 5, wherein the abrasion resistant inner surface is
2 textured.

1 10. (Original) The apparatus of claim 1, wherein the abrasion resistant inner surfaces
2 are chosen from a group consisting of hard metals, carbides, borides, nitrides,
3 and ceramic materials.

1 11. (Original) The apparatus of claim 10, wherein the inner casing comprises four
2 parts.

1 12. (Original) The apparatus of claim 11, wherein each part of the inner casing is
2 made of a single abrasion-resistant material.

1 13. (Original) The apparatus of claim 11, wherein parts of the inner casing are made
2 from different abrasion-resistant materials.

1 14. (Original) The apparatus of claim 1, wherein the propellant fluid is air.

1 15. (Original) The apparatus of claim 1, wherein the propellant fluid is nitrogen.

1 16. (Original) The apparatus of claim 1, wherein the propellant fluid is steam.

1 17. (Original) The apparatus of claim 1, wherein the abrasion resistant inner surface
2 is smooth.

1 18. (Original) The apparatus of claim 1, wherein the abrasion resistant inner surface
2 is textured

1 19. (Original) The apparatus of claim 1, wherein the inner casing comprises four
2 parts.

1 20. (Original) The apparatus of claim 19, wherein each part of the inner casing is

2 made of a single abrasion-resistant material.

1 21. (Original) The apparatus of claim 19, wherein parts of the inner casing are made
2 from different abrasion-resistant materials.

1 22-27. (Canceled)

1 27. (Canceled) The apparatus of claim 1, wherein the pressurized duct is an annular
2 duct.

1 28. (Previously presented) The apparatus of claim 1, wherein the inner casing is
2 completely assembled before introduction into the outer casing.

1 29. (New) The apparatus of claim 1, wherein the pressurized duct is an annular duct.